

REMARKS

The Official Action rejects claims 1, 4, 10-12, 19 and 26-28 under 35 U.S.C. §112, second paragraph as being indefinite. The Official Action identifies the language underlying such rejection, and Applicants have amended the claims as necessary in order to overcome this rejection. Reconsideration and withdrawal of this rejection are therefore respectfully requested.

The Official Action rejects claims 1, 3-13, 15, 16, 18-24, 26-29 and 31 under 35 U.S.C. §103(a) as being unpatentable over NAGAI in view of GAUTHERIN et al. Reconsideration and withdrawal of this rejection are respectfully requested for the following reasons:

The Official Action relies of the primary NAGAI reference for all but one set of features recited in the rejected claims, namely the method steps and apparatus directed to the reflection by a first mirror of the optical radiation from the dispersive component to the optical modulator as well as the reflection by a second mirror of the optical radiation from the optical modulator to an exit slit. It is these features for which the secondary GAUTHERIN et al. reference is offered.

The Official Action relies particularly on the illustration in Figure 2 of the secondary reference of a pair of mirrors M_1 and M_2 . The identified mirrors in Figure 2 of GAUTHERIN et al. are each concave and are arranged in such a

manner so as to replace a standard transmissive lens element. Moreover, the mirrors are arranged such that light reflected off the first mirror m1 passes directly to the mirror M2.

Accordingly, the only substantial teaching of the arrangement of mirrors of GAUTHERIN et al. is that a set of concave mirrors can be used to replace a converging lens by causing the light to travel in a zigzag path, reflecting directly off a first of the concave mirrors to the second of the concave mirrors. Applying this teaching to the apparatus of NAGAI, the fundamental arrangement of the components of the device, considering either the embodiment of Figure 6 or that of Figure 19 identified in the Official Action, merely replaces an element such as element 5 with a pair of concave mirrors that serve the converging function of such lens element. However, all this would accomplish is rearranging of components and passing the light through a zigzag path. However, the path of the light to and from the optical modulator is unchanged in either embodiment of NAGAI by the replacement of one or more lenses with a set of concave mirrors.

Applicants note that each of the independent claims specifically recites, either in the context of method steps or apparatus arrangement, that light from a disbursive component falls on a first mirror, which reflects such light to the optical modulator, and light leaving the optical modulator falls on a second mirror, which reflects such modulated light to an exit

slit. Applicants respectfully suggest that there is no way to reach the combination of mirrors and optical modulator in which the path of light from a first of the mirrors to the optical modulator and then to a second of the mirrors, as recited in the present claims, from a consideration of either of the references, considered either independently or collectively.

Further, no reasonable combination of the references can be considered to teach an exit slit distinct from an entrance slit in an arrangement in which the path of light is defined by the arrangement of mirrors and modulator recited in the present claims.

The Official Action rejects claims 2 and 17 under 35 U.S.C. §103 as being unpatentable over the combination of NAGAI and GAUTHERIN et al. discussed in the prior rejection, and in further view of STAFFORD et al. Additionally, the Official Action rejects claims 14, 25 and 30 under the NAGAI-GAUTHERIN et al. combination and further in view of GOURLEY et al.

In the former rejection, the additional STAFFORD et al. reference is offered only for the asserted teaching or suggestion of a spectrometer and characteristics related thereto. In the latter rejection, the additional GOURLEY et al. reference is offered for additional disclosures related to a spectrometer for measuring the optical spectrum.

However, each of the rejected claims ultimately depends from one of independent claims 1 and 16. In each of the additional rejections, the base combination of NAGAI and GAUTHERIN et al. is relied upon for the basis of each claim. As discussed above in connection with the first obviousness rejection, the NAGAI-GAUTHERIN et al. combination fails to teach or suggest the set of features for which it is offered. By extension, each of the subsequent obviousness rejections necessarily fails also, as neither the STAFFORD et al. nor GOURLEY et al. reference overcomes the shortcomings of the NAGAI-GAUTHERIN et al. set of references.

For these reasons, reconsideration and withdraw of both rejections are respectfully requested.

In light of the amendments described above and the arguments offered in support thereof, Applicants believe that the present application is in condition for allowance and an early indication of the same is respectfully requested.

If the Examiner has any questions or requires further clarification of any of the above points, the Examiner may contact the undersigned attorney so that this application may continue to be expeditiously advanced.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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